

**REMARKS/ARGUMENTS**

With entry of this amendment, claims 1-35 are pending in the above-identified application. Claims 27, 28, and 32-35 have been withdrawn from consideration by the Examiner as drawn to a non-elected invention. The specification as well as claims 14 and 18 are amended to correct an obvious typographical error. Claims 29 and 31 are amended to add sequence identifiers. No new matter is added by these amendments.

**Rejections Under 35 U.S.C. § 112, second paragraph**

Claims 18 and 29 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite, the Examiner believing that there is insufficient antecedent basis for the recitation in claim 18 of "an isolated polypeptide according to claim 14."

Applicants believe that the instant rejection is moot in view of the amendment to claim 18 as set forth above. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 18 and 29 as allegedly indefinite under 35 U.S.C. § 112, second paragraph.

**Rejections Under 35 U.S.C. § 102(b)**

Claims 1-26 and 29-31 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Furlan *et al.* (*Blood* 87:4223-4234, 1996). The Examiner admits that Furlan *et al.* "do not particularly teach that the composition [having vWF protease activity] contains peptide chains that are between 190 and 100 kD, i.e., 180 kD, 170 kD, 160 kD, 120 kD, 110 kD." However, the Examiner contends that Furlan *et al.* is anticipatory based on Figure 7 of the reference, which the Examiner believes discloses bands corresponding to the molecular weights enumerated above. The Examiner, relying on a second reference, Gerritsen *et al.* (*Blood* 98:1654-1661, 2001), further believes that the N-terminal amino acid sequences set forth in SEQ ID NOs 1, 4, and 15 to be "inherent features" of the C-terminal truncated forms of the vWF protease disclosed by Furlan *et al.*

Applicants traverse the instant rejection. "[A] prior art reference may anticipate without disclosing a feature of the claimed invention if that missing characteristic is *necessarily present*, or inherent, in the single anticipating reference." *Schering Corporation v. Geneva Pharmaceuticals, Inc.*, 339 F.3d 1373, 1377, 67 USPQ2d 1664, 1667 (Fed. Cir. 2003) (emphasis added). Although recognition of the missing characteristic need not be present in the alleged prior art, a finding that the missing characteristic is necessarily present must be based on a proper determination of the disclosure of the alleged prior art reference. *See id.* Inherency may not be established by mere possibilities or probabilities. *See, e.g., Mehl/Biophile Int'l Corp. v. Milgraum, M.D.*, 192 F.3d 1362, 1365, 52 USPQ2d 1303, 1305 (Fed. Cir. 1999).

Initially, Applicants note that Furlan *et al.* refer to the proteins having a  $M_r$  other than 300 kD on an unreduced SDS-PAGE gel, including, *inter alia*, protein bands in the range between 180 and 130 kD, as "*contaminating proteins*" (*see, e.g.,* page 4228, first column, line 7, bridging to second column, line 5) (emphasis added), and thus not vWF protease. Furlan *et al.* purified the 300 kD band vWF protease band by chelate chromatography, hydrophobic chromatography and gel filtration. Based on this purification scheme, Furlan *et al.* concluded as follows:

Although the final product was purified about 10,000-fold, the protease was still contaminated by a number of nonidentified proteins. The elution of the [vWF] proteolytic activity coincided with the appearance of a protein with an  $M_r$  of 300 kD. On reduction of disulfide bridges, the main polypeptide bands migrated in SDS-PAGE, with apparent  $M_r$  of 65 and 50 kD."

(*See Furlan et al.* page 4232, first column, middle paragraph). Thus, according to Furlan *et al.*, only the unreduced 300 kD protein band corresponds to vWF protease. Further, Furlan *et al.* disclose that under reduced conditions, the main polypeptide bands have  $M_r$  of 65 and 50 kD.

The second reference relied on by the Examiner, Gerritsen *et al.*, has a publication after Applicants' priority date. Unlike Furlan *et al.*, Gerritsen *et al.* use a different purification

scheme which would be expected to remove more contaminating proteins than the scheme used by Furlan *et al.* Indeed, the Gerritsen *et al.* publication does not equate the protein bands identified in that reference as the same as those allegedly present in the Furlan *et al.* reference. Thus, given the differences in purification schemes used by Furlan *et al.* and Gerritsen *et al.*, and the disclosure of Furlan *et al.*, Applicants respectfully believe that the Examiner has not established a *prima facie* case for alleging that Applicants' instantly claimed vWF polypeptides and compositions are necessarily disclosed by the Furlan *et al.* reference.

Applicants further traverse the instant rejection believing the Furlan *et al.* reference is not properly enabled. For a reference to be anticipatory under 35 U.S.C. § 102(b), the reference must be enabling, *i.e.*, the reference must contain a description of the claimed invention in such full, clear, and exact terms as to enable any person skilled in the art to which it pertains to make and use the same. *See, e.g., Elan Pharmaceuticals, Inc. v. Mayo Foundation for Medical Education and Research*, 346 F.3d 1051, 1054, 68 USPQ2d 1373, 1376 (Fed. Cir. 2003); *Titanium Metals Corp. of America v. Banner*, 227 USPQ 773 (Fed. Cir. 1985). In the present case, Applicants again note that Furlan *et al.* refer to the proteins having a  $M_r$  other than 300 kD on an unreduced SDS-PAGE gel, including, *inter alia*, protein bands in the range between 180 and 130 kD, as "*contaminating proteins*" (*see, e.g.,* page 4228, first column, line 7, bridging to second column, line 5) (emphasis added). Accordingly, because Furlan *et al.* disclose that polypeptides smaller than 300 kD *do not* contain vWF protease activity, a skilled artisan following Furlan *et al.* would discard these proteins from a "vWF protease" preparation. Further, because enablement of the reference must be ascertained as of the filing date of the application in question, in this case at least no later than the actual filing date of April 12, 2001, the Gerritsen *et al.* reference, published September 15, 2001, does not cure the deficiency of Furlan *et al.* in this regard. Thus, Applicants submit that Furlan *et al.* is non-enabling with respect to the presently claimed invention.

Therefore, at least for the reasons set forth above, Applicants believe that claims 1-26 and 29-31 are not anticipated by Furlan *et al.* Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of claims 1-26 and 29-31 as allegedly anticipated by Furlan *et al.* under 35 U.S.C. § 102(b).

Appl. No. 09/833328  
Amdt. dated December 1, 2003  
Reply to Office Action of June 3, 2003

PATENT

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 206-467-9600.

Respectfully submitted,

Dated: Dec. 1, 2003

By:

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Attachments

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